CHAPTER 13

Child Abuse

Arwa Nasir

There are four recognizable forms of child maltreatment: child neglect, physical abuse, sexual abuse, and emotional abuse. Physical and sexual abuse tend to present acutely. Physicians should maintain a high index of suspicion for injuries among children particularly in younger age groups. Suspicion of any form of maltreatment, including neglect or emotional abuse, should prompt careful assessment and management following the principles outlined below.

PHYSICAL ABUSE

Estimates of numbers of abused children exceed reported statistics. Also, not all child maltreatment results in injuries. However, injuries resulting from intentional trauma tend to be more severe than accidental injuries.

Several factors haves been associated with an increased risk for physical abuse, including children living in households with unrelated adults (50-fold increased risk), children suffering from developmental disabilities (2.1 times higher risk), poverty (3 to 5 times higher risk in households with income less than $15,000), and adult-partner violence (4.9 times higher risk). The presence of risk factors should not be used as indicators of child abuse but rather to provide guidance for prevention and management.

Child abuse causes significant long-term medical and psychologic morbidity. Research indicates that brain development can be physiologically altered by prolonged, severe, and unpredictable stress, as frequently seen in child abuse. This alteration can negatively affect a child's physical, cognitive, emotional, and social development.

Symptoms and Signs

Child abuse should be suspected when a child presents with an injury inconsistent with the history given by the caretakers. In addition, certain injuries in children are unlikely to happen accidentally, and nonaccidental causes should be suspected whenever these injuries are encountered. For instance, long bone fractures are very uncommon in the preambulatory child and should be investigated. Skull fractures and intracranial bleeding are also unlikely to be the result of minor household accidents and should arouse suspicion.

- Injury not compatible with the history ++++
- Different stories from different caretakers ++++
- Major elements of the history change ++++
- History of previous nonaccidental trauma ++++
- History of abuse in siblings +++
- Long bone fractures in infants or toddlers ++++
- Skull fractures in infants or young children ++++
- Multiple bruises on torso +++
- Internal abdominal injuries in the absence of history of severe accidental trauma ++++
- Hollow viscus injury ++++
- Unexplained head injury in infants or young children ++++
- Retinal hemorrhages ++++
- Immersion burns +++
- Adult bite marks ++++
- Genital injuries ++++
- Sexually transmitted diseases ++++

SEXUAL ABUSE

Presentations of sexual abuse vary. However, the principles of evaluation and documentation are similar to that of physical abuse. The first priority should be given to medical evaluation and stabilization of the child. At a minimum, a superficial genital examination should be done; however, strong consideration should be given to referring the child to a physician experienced in evaluation of child abuse for a more detailed examination. This referral should be carried out expeditiously in all cases, and emergently in cases of acute sexual assault.

PRINCIPLES OF ASSESSMENT OF NONACCIDENTAL INJURIES

As in all cases of injuries and illness, the first priority for the physician treating a child with possible nonaccidental injury is to assess and provide medical care and stabilization of the child as needed. Depending on the severity of the injury, stabilization may involve activating the emergency trauma response system. This may include surgical and critical care specialists. Once stabilization has occurred, obtaining a careful history is the most critical next step.

HISTORY

Information should be sought from all adults who witnessed the injury, and other adults who provide care for the child. History should be obtained from caretakers in a nonaccusatory manner. Important information to be elicited includes:

- Detailed history of events surrounding the injury
- Medical history including any chronic illnesses and previous injuries
- Developmental history including temperament and behavior
- Family history especially of metabolic, bone, and bleeding disorders
- Social history including household occupants, their employment, history of substance abuse, and domestic violence

The child can be interviewed if he or she is developmentally and emotionally able to answer questions. Care must be taken to ask open-ended, nonleading questions and reassure the child that the situation is not his or her fault. The child's responses, both verbal and nonverbal, should be accurately documented. The child should never be pressured to answer questions because he or she may be apprehensive about retribution for "telling." Sometimes victims of child abuse feel a sense of protectiveness toward the perpetrator.

PHYSICAL EXAMINATION

- Complete and comprehensive physical examination to assess for other injuries that are not part of the chief complaint. This is essential in case other injuries are present that require prompt attention, such as CNS or orthopedic injury.
- Complete neurologic exam of the child. Funduscopic examination should be attempted; however, it is not recommended to dilate the eyes until the child has been stabilized so as not to interfere with the diagnostic value of the pupillary reflexes.
- Skin should be fully inspected for bruises, burns, and bites. Special attention should be paid to the face, head and neck, buttocks, upper arms, hands, and trunk. These areas are less prone to accidental trauma.
- Careful abdominal examination to detect any abdominal injuries
- Observation of the demeanor and emotional and mental status of the child and caretakers

DOCUMENTATION

Documentation is especially important in cases of suspected nonaccidental injury or child maltreatment. This documentation should be done promptly and accurately and include all important details. Caretaker and child statements should be recorded verbatim if possible. Physical findings should be documented carefully, bruises and lacerations measured (not approximated), and photographs taken if possible. In addition, any treatments, consultations, referral, or reporting of the case should be documented, as well as plans for follow-up.

WORKUP

Laboratory workup is of limited value in the diagnosis of child abuse, except possibly for ruling out medical conditions that may mimic the presentation of nonaccidental injuries. A platelet count and coagulation profile may be needed if bruising is a major finding.

Imaging studies to document skeletal or CNS injuries play a major role in diagnosing abuse. Appropriate CNS imaging should be obtained if CNS injury is suspected. Skeletal surveys are recommended in suspected maltreatment of infants and young children.

Other laboratory and radiologic investigations may be indicated to assess the medical condition of the child and should be done accordingly.

DIFFERENTIAL DIAGNOSIS

Rare metabolic disorders such as aminoaciduria can present with acute encephalopathy in the newborn period that may be difficult to differentiate from traumatic head injury in the acute phase before all the diagnostic tests are available. Also, some rare bone diseases such as osteogenesis imperfecta can produce fractures with little or no trauma. Children with bleeding diatheses may bruise easily and might have multiple bruises that can be confused with trauma. Occasionally skin conditions such as bullous impetigo and some chemical burns may mimic inflicted thermal burns.

It should also be kept in mind that trauma is very common in children. Most injuries in children are accidental and not inflicted. Injury patterns are seldom specific for abuse; rather it is the inconsistency of the injury with the explanation provided that should raise suspicion.

MANAGEMENT

Management of suspected physical or sexual abuse should incorporate the following major principles:

- Stabilization and treatment of the child as necessary, including activation of the emergency response system if needed, and referral for appropriate evaluation and diagnosis of injuries
- Protection from further harm
- Reporting to child protective services
- Evaluation of the family where the abuse occurred for treatment and rehabilitation or accountability

Accurate identification of possible nonaccidental injuries in children is critical in order to initiate appropriate evaluation, referral, and investigation.

LEGAL CONSIDERATIONS

All 50 states and most countries in the world have laws that require physicians to report child abuse and neglect. Information on specific state laws are provided by the US Children's Bureau, the Administration for Children and Families, and the US Department of Health and Human Services.

PREVENTION OF CHILD ABUSE

The primary care physician is in an excellent position to prevent child maltreatment through:

- Providing anticipatory guidance in discipline and behavior management
- Awareness and screening for high-risk conditions such as domestic violence
- Early identification of signs of stress or unhealthy discipline behaviors
- Referral of parents or family to social services or mental health care as indicated
- Early identification and proper reporting and management of suspected abuse

References

Cairns AM, Mok JY, Welbury RR: Injuries to the head, face, mouth and neck in physically abused children in a community setting, *Int J Paediatr Dent* 15:310–318, 2005.

Child Welfare Information Gateway—resources from the US Department of Health and Human Services, includes information on child abuse and neglect. Available at www.childwelfare.gov/index.cfm (accessed January, 2011).

Kellogg N: The evaluation of sexual abuse in children, *Pediatrics* 116:506–512, 2005.

Kellogg ND: Evaluation of suspected child physical abuse, *Pediatrics* 119:1232–1241, 2007.

National Clearinghouse on Child Abuse and Neglect. Understanding the effects of maltreatment on early brain development. Available at http://nccanch.acf.hhs.gov (accessed January, 2011).